



# NUCLEAR DIVISION NEWS

A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 4 - No. 5

Thursday, March 1, 1973

## QUESTION BOX

**QUESTION:** Why does the Nuclear Division (ORNL, especially) continue to employ wives, children and/or close relatives of executives, such as department heads, assistant or division heads, or other staff members whose salary alone would be sufficient to support their family? Also, how many young, single female employees were hired during the year 1972?

**ANSWER:** Applicants are considered primarily on the basis of how nearly their skills match those required by the open jobs. Neither their economic status nor nepotism is a factor in their selection. Nuclear Division employees refer many friends and relatives to us. These are considered for employment like other applicants and some are hired when found to be qualified for available vacancies. The Nuclear Division hired 750 personnel during 1972 including 216 women of which 63 were single and under 30 years of age. As you may know, neither age nor sex can be used as a legitimate reason for excluding qualified applicants from employment.

**QUESTION:** Who, specifically, decided that ages and cause of death of employees be excluded from the Nuclear Division News? Why? I believe these facts are a matter of interest to other employees who do not subscribe to the local newspaper in which the detailed information may have appeared.

**ANSWER:** The decision against using ages and causes of death was made by the editorial staff of Nuclear Division News. It is the belief of the editorial staff that neither of these is germane to the obituary.

**QUESTION:** I noticed in the Nuclear Division News recently where the Y-12 Maintenance Department donated a sum of money to the Daniel Arthur Rehabilitation Center at their pre-Christmas dance. Why were hourly employees in the division not invited by writing to the

dance as monthly employees were? Many of us would have attended, and increased the contribution considerably had we known about it in advance.

**ANSWER:** The Y-12 Maintenance Division supervision has been organizing and holding a Christmas dinner-dance for about 10 years. This affair has been attended by some hourly maintenance employees. Written invitations are not issued within the division, and limited ticket sales occur on a first-come, first-served basis. The attendance is limited by the capacity of available accommodations. This past dinner-dance, at the Oak Ridge Country Club, was limited to an attendance of 270, which included spouses and guests. We are advised that indications of interest have been insufficient to justify planning for greater attendance, which would include commitments for a larger banquet hall, if available. We appreciate your interest and perhaps larger facilities could be reserved for the next event, if sufficient interest is shown.

**QUESTION:** Oak Ridge National Laboratory and the Oak Ridge Gaseous Diffusion Plant have "staggered" shifts to relieve the traffic situation. Has Y-12 ever considered such a move?

**ANSWER:** Y-12 has considered making such a move several times during the past years but each time has decided against staggering the day shift employees, who work 8 a.m. to 4:30 p.m. as a rule. There are, as you may know, 2,600 shift employees whose schedules are staggered, beginning at 7 a.m., 3 p.m., and 11 p.m.

The main advantage of staggered shifts is lighter traffic flow. The principal disadvantages are reduced efficiency (where there is interaction between employee groups) and problems with car pool arrangements. Y-12 has widened roadways and improved traffic flows to alleviate traffic conditions and thinks, on balance, at least for the time being, the present arrangement is better.

### NUCLEAR DIVISION SAFETY SCOREBOARD

Time worked without a lost-time accident through February 22:

Paducah	136 Days	850,000 Man-Hours
ORGDP	44 Days	619,000 Man-Hours
ORNL	73 Days	1,284,418 Man-Hours
Y-12	35 Days	1,269,000 Man-Hours

**Safety is everyone's concern!**

## Nuclear Division's frequency rate lauded; '73 goals given

For the sixth consecutive year, the Nuclear Division's disabling injury frequency rate was less than one injury for each million hours worked in 1972. The frequency rate, defined as the number of injuries per million man hours, was 0.63 for the four division plants.

In citing the outstanding performance in the four Nuclear Division plants, Division President Roger F. Hibbs pointed to the record 13,778,374 hours, or 376 days, worked in the Oak Ridge Y-12 Plant without a disabling injury, a new

Union Carbide Corporation record!

Hibbs also pointed out that the serious injury frequency rate of 8.69 for last year was a reduction from 11.21 since 1967.

Goals of 0.15 for disabling injuries and 8.0 for serious injuries have been established for 1973. It is highly desirable, Hibbs pointed out, that we "complete each day without an incident or injury."

A comparison of the 1973 goals, with the experience of the past six-year period follows:

### DISABLING INJURY FREQUENCY RATES

	1967	1968	1969	1970	1971	5-Yr. Avg. 1967-71	1972	Goals 1973
Y-12	0.56	0.18	0.32	0.23	0.57	0.37	0.07	0.4
ORNL	0.50	0.13	0.27	0.76	0.61	0.45	1.08	0.6
ORGDP	0.63	0	0.60	0.39	0.80	0.48	1.18	0.8
Paducah	0.51	1.42	0.92	0.97	1.37	1.04	1.34	0.5
Total	0.55	0.23	0.40	0.41	0.68	0.45	0.63	0.5

### Serious Injury Frequency Rates

	1967	1968	1969	1970	1971	5-Yr. Avg. 1967-71	1972	Goals 1973
Y-12	11.89	10.18	10.88	9.42	10.24	10.52	8.61	7.5
ORNL	11.08	9.41	4.92	7.47	5.83	7.74	7.58	8.6
ORGDP	7.58	9.77	7.58	9.40	9.19	8.70	9.06	8.4
Paducah	16.79	13.77	14.28	14.99	10.06	13.98	11.59	8.2
Total	11.21	10.17	8.90	9.37	9.00	9.73	8.69	8.0

## New commissioner assumes AEC helm

"In designating me to succeed Dr. Schlesinger as Chairman of the Atomic Energy Commission, President Nixon has paid me a single honor. I am determined to demonstrate that his confidence is well



Chairman Ray

placed. Together with my colleagues on the Commission, and with a staff that has no peer in government service, we intend to move forward resolutely in all of the programs that lie within the broad arena of AEC responsibility.

"The Atomic Energy Commission is an agency that is unique in the annals of Federal Government. It has had a long and honorable history of accomplishment. For the past 18 months we have enjoyed the leadership of a remarkable and forceful man. In moving on to other responsibilities, James Schlesinger leaves an indelible mark on this agency. The measure of our success will be how well we maintain the momentum and continue

the forward progress that he fostered and for which he provided such able leadership. It is now up to us to get on with the job."

## AIChE--AIC meeting scheduled March 22

The Knoxville-Oak Ridge section of the American Institute of Chemical Engineers and the Tennessee Institute of Chemists hold their annual joint meeting Thursday, March 22, at the Oak Ridge Country Club.

Following dinner the chemists and engineers will present a special technical session by William C. Handlan of the Jack Daniel Distillery. With Handlan will be the head stiller at Jack Daniels, who will also participate in the discussions.

Interested members of the AIChE local section should contact their membership representative or Chuck Cunningham, ORNL, for information or reservations. Members of the TIC should contact Gerald Goldstein, also of ORNL.



## Carbide Camera Club began in early Oak Ridge history

The war was just over, meat still scarce, and sugar still rationed. Oak Ridgers were allowed six packs of cigarettes a week, and you produced your pay stub to get those!

The ban on cameras had just been lifted, and a group of Y-12ers got together to organize a Camera Club, early in 1946. Gail S. Wilson, Don Ross and Mary Olmstead were named president, vice president and secretary-treasurer, respectively. That year the club offered its first category for competition: small prints in any subject matter.

### Carbide group formed

Three weeks after Union Carbide began operating the Y-12 Plant, the first Carbide Camera Club was organized. Named president was Gilbert Mellen, Y-12; Russell Perkins, vice president; and Paul R. Vanstrum, secretary-treasurer, both from ORGDP. Dues in those days were \$2; they're \$3 now, and include what are referred to as "family memberships," where entire families of Union Carbide employees may join.

The purpose of the club is to provide an exchange of information and ideas by people interested in photography as a hobby. Equipment and facilities are made available with assistance from the Carbide Recreation Department, particularly that equipment which may not be economically feasible for members to own themselves.

The club maintains a dark room complete with enlarger developing facilities, dryer, and all necessary equipment for beginning or advanced dark room work.

Only film, paper and chemicals are furnished by individual members. There are lockers available for storage of equipment by members.

### Cheyenne Hall quarters

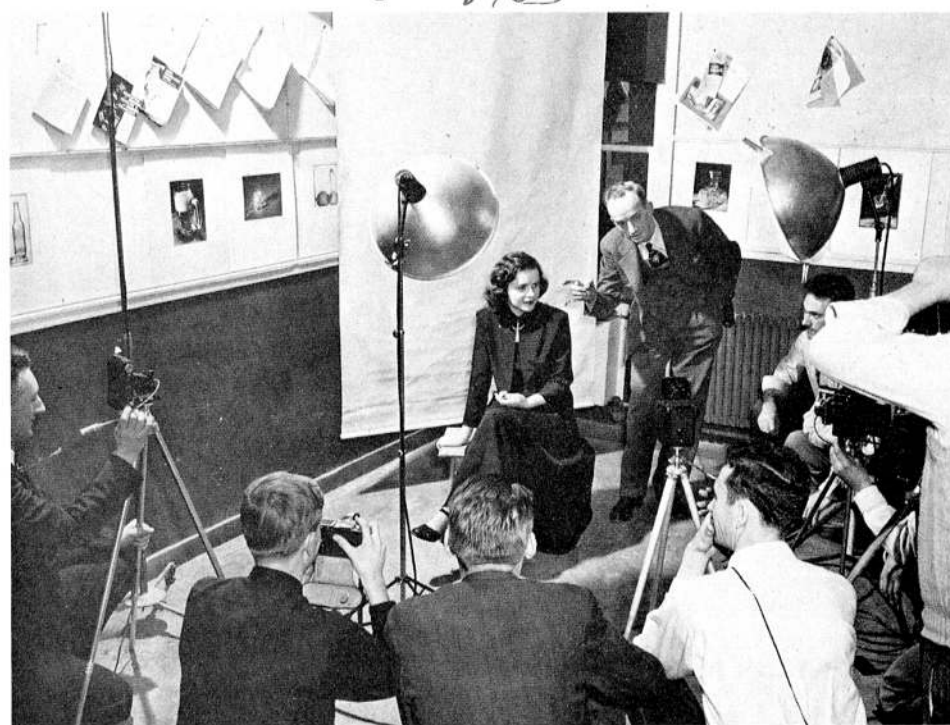
Studio equipment owned by the club includes lights, backdrop paper and even cameras. Several long focal length lenses for 35 mm and larger cameras are available for use by club members.

The amateur photographers meet at 7:30 p.m. on the second Tuesday of each month in space in Cheyenne Hall, Oak Ridge, provided by the Recreation Department of the three Oak Ridge plants. Programs are usually preplanned and may feature a talk on some phase of photography from the Photographic Society of America (the club became affiliated with PSA in 1954), or one of the major film suppliers, or visiting professional photographers or artists in the area. Ward Bandy, head of the Photography Department in Y-12, was a recent speaker. Bandy spoke on using the view camera.

### Monthly competition

Emory Kristof, award-winning photographer from *National Geographic*, recently spoke to the club on "Approaches and Adventures to Photography." Kristof was in the area on assignment in connection with a forthcoming article in his magazine on the energy crisis.

One of the liveliest activities in the CCC is the competition offered among members monthly. Prizes usually include merchandise which merchants from local camera shops provide. The same stores



*MODEL USED — Robin Thompson, a former Y-12er and professional photographer, demonstrates the use of a model to early Carbide Camera Club members. The model is Joyce Wendolkowski, a former Y-12er, and wife of Walter S. Wendolkowski, ORGDP. Club members surround model and teacher.*

usually provide generous discounts to members on certain items.

### Family membership

Another interesting activity of the club is the photography school held each spring. Taught by club members, it begins with simple picture-making with a box camera and progresses through the various stages to advanced work, including dark room science, and color and black-and-white development. The classes are held two hours each week and usually run about eight to 10 weeks.

Any Union Carbide employee is eligible for membership, as well as any member of his family. Retired employees and their families are also eligible and encouraged to become members. The club is especially open for beginners, and the veteran "experts" already in the club are willing to share their knowledge and expertise with the camera.

Another highlight of a year's activity is the Salon held each fall, where exhibits of Camera Club members' work are displayed in a special showing, usually at one of the art museums in town.

(Continued on Page 8)

## NUCLEAR DIVISION NEWS

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*LATEST WINNER — Terry Domm, ORGDP, took the first place in February's competition in black and white photography with his striking photo of sea oats. John Blankenship, also of ORGDP, took second place, with a picture of a country church, and L.C. Toomer, AECOP, won third place with a ballet photo, entitled "Cinderella." Bill Harper, Y-12, won the color print competition for February with a landscape of Copenhagen's wharf.*



*EARLY CAMERA CLUB MEMBERS — Photographing a portrait is explained to early members of the Carbide Camera Club. Recognize anyone you know? The caption was lost for the photograph above and the staff of the News welcomes identification of the participants.*



## Record high sales for Union Carbide

Union Carbide Corporation's 1972 worldwide sales reached a record \$3,264,000,000, seven percent higher than the 1971 total. On the basis of preliminary figures, net income was \$203,000,000, or \$3.35 a share, 29 percent higher than the \$2.61 a share earned in 1971.

Much of the strength in domestic sales was attributed to the general improvement in the economy during 1972. The only weakness in major product categories was in metals and carbon products, where domestic dollar sales remained at about the same level as in the previous years.

The improvement in earnings over 1971 was due to healthy sales gains, to an exceptionally smooth start-up of the large new petrochemicals complex at Puerto Rico, and to good operating performance generally, as well as to continued successful efforts to reduce costs and improve efficiency by shutting down obsolete plants and eliminating unprofitable or marginally profitable operations.

An increase of about six percent in domestic sales is anticipated by Carbide officials, with a sales gain of approximately 10 percent in international business, which has been increasing faster than domestic.

The corporation is continuing to expand, both in this country and abroad. The corporation's worldwide construction expenditures were about \$250,000,000 in 1972, of which \$165 million was spent in the United States and Puerto Rico. In 1973, domestic spending is expected to increase to about \$200,000,000 while outside of the United States it will be around \$115,000,000. Research and development expenditures totaled about \$70,000,000 in 1972 and are expected to be somewhat higher in 1973.



**PROJECT AVOID** — Larry Egner is 1972-73 community service chairman and Project Avoid coordinator for the Tennessee District of Optimist International. Egner works in the Metals and Ceramics Division at Oak Ridge National Laboratory. Governor Winfield Dunn recently proclaimed the week of March 4-10 as "Project Avoid Week." Project Avoid is an undertaking of the Optimist Clubs in the United States and Canada to help young people detect, treat and prevent the spread of venereal diseases. Present to witness signing of the proclamation were, from left: Dr. Curtis Sexton, community service chairman for 1971-72; Clay Boyd Jr., governor of the Tennessee District of Optimist International; Governor Dunn; State Representative James E. Elkins; and Egner.

## Stelson assumes heavy ion project

ORNL's Paul H. Stelson has been named Technical Director of the National Heavy Ion Laboratory Project. He will assume these duties in addition to his continued service as Associate Director of the Physics Division.

Stelson received his M.S. degree from Purdue University and his Ph.D. degree from Massachusetts Institute of Technology. He also served a two-year post-doctoral research appointment at MIT. He joined the ORNL staff in 1952 and did research in experimental nuclear physics, coulomb excitation and nuclear reactions. In 1962 he left ORNL to become professor of physics at Rice University. A year later he returned to ORNL and became director of the Van de Graaff Laboratory. He has been Associate Director of Physics since 1971.

A part-time faculty member at the University of Tennessee since 1968, Stelson has over 90 publications in the open literature.

## Religious art show set again for May 12

Grace Lutheran Church, Oak Ridge, is again sponsoring a Religious Arts Festival. The show will open May 12 at the Oak Ridge Civic Center.

Classifications for the show are: Painting, oils, watercolor, polymers, pastels, etc., both two and three dimensional; drawings - pen and ink, pencil, charcoal, etc.; graphics - such as block prints, etching, lithography; photography; crafts-metal work, embroidery, batik, jewelry, enamels or any other creative expression in any media. All work must be an original creative work of religious expression.

Further details will be announced. Inquiries may be directed to the church in the mornings, or to Mrs. David Braski, 483-2718, Oak Ridge, or Mrs. Michael Lain, 483-1935.

## Metals and ceramics director metallurgical society fellow

97734

John H. Frye Jr., director of the Metals and Ceramics Division at Oak Ridge National Laboratory has been elected to fellowship in the Metallurgical Society of AIME. The class of Fellow is a unique honor presented by the board of directors of the Society to members who have made outstanding contributions to the metallurgical arts and sciences. No more than five Fellows are elected each year, and the total number of living Fellows must not exceed 100.

Frye is being recognized for his leadership as director of Metals and Ceramics Division, which has resulted in the development of the fuels and materials effort from a limited nuclear materials program to one involving a broad range of coordinated disciplines within the field of materials science and engineer. He has maintained a climate in which fundamental and applied research and engineering development not only coexist, but mutually reinforce each other in setting a high standard of excellence.

Frye, who received the Ph.D. in Physical Science from Oxford University, joined the ORNL staff in 1948. He was previously elected to fellowship in the American Association for the Advancement of Science and the American Society for Metals. A member of the advisory



John H. Frye Jr.

board of two technical journals, Frye is listed in "Leaders in American Science," "Who's Who in Atoms" and "American Men and Women in Science." He has been a lecturer in the Graduate School at The University of Tennessee since 1950.

## Foreign travel

Arthur F. Rupp, ORNL's Isotopes Division, will present the paper "Enriched Isotope Targets for Radioisotope Production," at the IAEA Symposium on New Developments in Radiopharmaceuticals and Labelled Compounds to be held in Copenhagen, Denmark, March 26-30, 1973.

Alvin M. Weinberg, J. Rand McNally Jr., Frank F. Dyer and Daniel J. Horen, ORNL, will present papers at the IAEA Symposium on Applications of Nuclear Data in Science and Technology to be held in Paris, France, March 12-16.

Weinberg will present the keynote address. The title of McNally's paper is "Nuclear Fusion Chain Reaction Applications in Physics and Astrophysics." Horen will present "Nuclear Data Project: Operations, Status and Plans." Dyer's paper is titled "A Compilation of Modern Nuclear Decay Data for High Resolution Gamma Spectroscopy."

James B. Ball and J.J. Pinajian, Isotopes Division; A.C. Rester, Institut für Strahlen und Kernphysik der Universität Bonn; and J. Larsen, Niels Bohr Institute, "A Study of the  $^{86}\text{Sr}$  (p,t)  $^{84}\text{Sr}$  Reaction at 31 MeV," at the Heidelberg Meeting of the German Physical Society, Heidelberg, Germany.

Audrey Stevens and Diane Crowder, Biology Division, "New Small Proteins Associated with DNA-dependent RNA Polymerase of *E. coli* after Infection with T4 Phage," at the Symposium on Control of Transcription, Calcutta, India.

Barbara A. Hamkalo and Oscar L. Miller Jr., Biology Division, "Fine Structure of Active Genes in Prokaryotes and Eukaryotes," at the International Symposium on Control of Transcription, Calcutta, India.

Three ORNL papers will be delivered in May at the Symposium on Environmental Behaviour of Radionuclides Released in the Nuclear Industry, at Aix-en-Provence, France, May 14-18. They are: "Methods of estimating dose to man from regional growth of Nuclear Power," by Kenneth E. Cowser, Ray S. Booth, Birney R. Fish, Walter S. Snyder, John P. Witherspoon Jr., and W.H. Wilkie, TVA; "Assessing potential radiological impacts to aquatic biota as required by the National Environmental Policy Act of 1969," by Stephen V. Kaye; "Relative radiological importance of environmentally released tritium and krypton-85," by Paul S. Rohwer.

An ORNL paper will be presented at the International Union of Pure and Applied Chemistry in Prague, in September. It is "Voids in boron carbide before and after neutron irradiation," by Carus K.H. DuBose, and K. Ashbee, of the H.H. Willis Physics Laboratory, Bristol, England.

Another Laboratory paper, "Chemical studies on the heaviest elements," will be given at the XXIVth International Congress of Pure and Applied Chemistry at Hamburg, Germany. It is authored by Robert J. Silva.

### Next Issue

The next issue will be dated Mar. 15. The deadline is Mar. 7.

It is only about things that do not interest one that one can give a really unbiased opinion, which is no doubt the reason why an unbiased opinion is always valueless. —Oscar Wilde



# DIVISION Retirees



Dugger McCullah

Two Y-12ers retired January 31, as Charles E. Dugger, Alpha 5 East Shop, and Theodore R. McCullah, Electric and Electronics, both elected early retirement.

Dugger, a native of Pembroke, Ga., came with Union Carbide in 1951. He presently lives at Route 3, Kingston.

McCullah, a native of LaFollette, also came to Y-12 in 1951. He presently lives at Route 1, Lenoir City.



Abernathy Burks

Two Oak Ridge Gaseous Diffusion Plant employees retired January 31; Thomas A. Abernathy and William C. Burks.

Abernathy, a planner and estimator in the Separation Systems Department, came with Union Carbide February 14, 1962.

He lives at 117 Tucker Road, Oak Ridge.

Burks, a maintenance mechanic in the Maintenance Division, came with ORGDP January 1, 1945.

He lives at 108 Jellico Lane, Oak Ridge.



Halsey

Robert E. Halsey, in ORGDP's Fabrication and Maintenance Division, retired February 28, after working more than 10 years with Union Carbide. He lives at Route 2, Kingston.

Howard A. Shamblin, a foreman's clerk in ORNL's Plant and Equipment Division has retired. He came to work at Union Carbide in June, 1951.

He is at home on Brushy Valley Road in Powell.



Bratcher Howard

Two Paducah Plant employees retired recently. They were, Clessie L. Bratcher, Finance and Materials Department; and Joseph M. Howard, Plant Protection.

Bratcher, a native of McMinnville, Tenn., came with the Clinton Engineering Works in 1945, transferred to Y-12 in 1947 and to Paducah in 1951. The accounting supervisor will make his home at 1124 Friedman Lane, Paducah.

Joseph M. Howard joined the Division at Paducah in 1951 as fire and guard captain. A native of Marshall County, Ky., Howard attended the University of Kentucky. After graduation, he taught school and served during World War II as an infantry major in the Army. He was with the Veterans Administration before joining Union Carbide. He lives at 18 Martin Circle, Paducah.



Doss Hinds



Sheridan

Five Oak Ridge National Laboratory employees retired at the end of February.

Walter C. Bushnell, of the Operations Division, started work with Union Carbide on May 22, 1944. He lives at Route 4, Lenoir City.

Forrest A. Doss, Reactor Chemistry Division, joined the Carbide staff in August, 1948. He and his wife, Lera, enjoy camping. They have camped in all continental states and seven of the provinces of Canada. The Doss home is at 304 Woodhaven Lane, Clinton.

Orville E. Conner took early retirement after working at ORNL for over 18 years. He was a laboratory technician in Metals and Ceramics Division. He lives at Route 4, Lenoir City.

Hubert T. Hinds worked as a guard in the Laboratory Protection Division. He had been with Union Carbide since June,



**THEIR OWN POW RETURNS** — Laura Turok and Teresa Briedert, right, daughters of Paducah employees, are properly thrilled over their very own POW, Lt. Col. Purcell, Louisville. Purcell was one of the first prisoners of war to be released by the North Vietnamese. They felt that wearing the bracelet was one small way to show their support and concern for Col. Purcell and all other POW's and MIA's. Laura is the daughter of Charles W. Turok, Industrial Relations; and Teresa is the daughter of Elmer C. Briedert, Planning and Technical Support.

1943. Hinds plans to do some fishing and "messaging around" in his workshop. He and Kate, his wife, also plan to visit their daughter and grandchildren in Winston-Salem, N.C. They reside at 1415 Coker Ave., Knoxville.

Clifford W. Sheridan came to Knoxville from Rochester, N.Y., in 1930 to attend The University of Tennessee, and has been in this area ever since. He started work at Carbide July 10, 1944. Sheridan enjoys gardening and fishing, and he and his wife, Margarie, plan to do some traveling when the weather clears. They live at 99 Orange Lane, Oak Ridge.



Bittle Noland

Three Y-12ers, Edwin M. Bittle, Claude E. Noland and Homer H. Terry retired yesterday, February 28.

Bittle, in Electronic and Electrical Department, is a native of Lake City. He came with Union Carbide in 1952, and lives at 1900 Highland Drive, Knoxville.

Noland, a native of Sevierville, came to work here in 1951. He retired from Y-12's Stores Department.



Terry

Terry, from Athens, Ala., lives at 304 Kirkwood Street, Knoxville. He worked in Research Services, and came with Union Carbide in 1953.

## Electronics class set at Wartburg

A new electronic class will be started soon at the Central Wartburg High School. They will be held on Monday and Wednesday from 6 to 10:30 p.m.

The course will include classes starting with basic math, followed by D.C. circuits, fundamentals of A.C. and A.C. circuit analysis, vacuum tube and semiconductor fundamentals, electronic circuits and systems, industrial and microwave electronic technology and advanced electronic circuit technology.

Registration for the new class will be at 7 p.m. March 7, at Central High, Wartburg. Information concerning the classes may be obtained from Lonzie Patterson, Clinton 457-9460, or extension 3-5726.

## Y-12ers give papers

Leander E. Woods, Jr., a Y-12 Plant engineer, spoke to the student chapter of the American Institute of Industrial Engineers at Auburn University, Auburn, Ala., February 19. He spoke on "A Production Engineer at the Nuclear Division."

Several Y-12ers participated in the American Society for Nondestructive Testing workshop held recently in Oak Ridge. Fred D. Mundt discussed "Leak Detection as a Nondestructive Test." Maynard W. Moyer presented a paper, co-authored by Donald H. Gray, entitled "Expanding the Capacity of a Laboratory Ultrasonic Testing Facility."

Harry S. Corey spoke on "Optical Surface Finish Measurement," and William E. Baucum spoke on "Residual Stress Analysis by X-ray Defraction."

Peace of mind is what is ruined by a piece of mind.



**Y-12 PLANT**

RIDE from Cedar Lane, Knoxville, to Bear Creek Portal, straight day. Brenda Price, plant phone 3-7895.

RIDE or will join car pool from St. Mary's Hospital section, Knoxville, to West Portal, straight day. Fred Alexander, plant phone 3-5126, home phone Knoxville 523-6081.

JOIN car pool from vicinity of Delmar and Delaware Avenues, Oak Ridge, to West Portal, straight day. E.S. Cochran, plant phone 3-5428, home phone Oak Ridge 483-7660.

RIDERS or will join car pool from Athens, Niota, Sweetwater, Philadelphia, to North Portal, straight day. Dave Burmood, plant phone 3-5376, home phone Athens 745-0095.

**ORGDP**

RIDE from Midtown area, Kingston, to Portal 7, straight day. Doug Bailes, plant phone 3-9311, home phone Kingston 376-7636.

JOIN car pool from Clinton to Portal 5 or 6, straight day. John Curny, plant phone 3-3460.

**ORNL**

RIDE from Jackson Square area, Oak Ridge, to East Portal, 8:15 shift. W.E. Abdelmalik, plant phone 3-1367. Will need ride for about six months.

**RETIRED Y-12 OPERATOR**

Clarence F. Christie, 117 Harvey Street, Knoxville, died February 18 at his home. He retired from Y-12 in 1971, after working as a process operator since 1945. He is survived by his wife, three brothers and three sisters. Funeral services were held at Knoxville.

**ALL CARBIDE BOWLING**

The Team No. 2 hangs onto number one spot in the Family Mixed League, rolling Friday nights. Charlie Thompson, on the leading team, posted a 252 game recently . . . Wanda Sewell, SASA's, rolled an even 200.

## Weaver son earns Air Force wings

Second Lieutenant John D. Weaver Jr., son of John D. Weaver, Dimensional and Instrument Inspection at ORGDP, was awarded his silver wings recently. He graduated from the U.S. Air Force's pilot training at Laredo Air Force Base, Tex.



Lt. Weaver

Lt. Weaver, a 1966 graduate of Karns High School, received his B.S. degree in 1971 from The University of Tennessee. He was

commissioned later in 1971 upon completion of Officer Training School at Lackland AFB, Tex.

Mrs. Weaver, the former Patricia Wyatt, is the daughter of Max Wyatt, ORGDP's Operations Division. Lt. Weaver also has a brother, K.S. Weaver, in ORGDP's Fabrication and Maintenance Division.

## N. D. Byrd named ORGDP supervisor



Noah D. Byrd

Noah D. Byrd has been named an electronic data processing supervisor in Computer Services at ORGDP's Computing Technology Center.

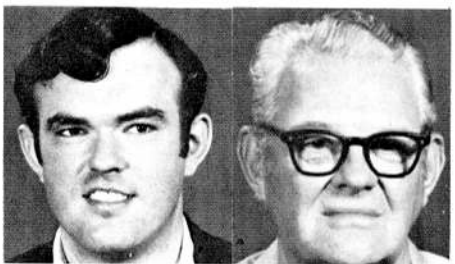
Byrd joined Union Carbide in 1952, after spending four years in the U.S. Air Force.

A native of Akron, Ohio, Byrd grew up in Oakdale in Morgan County.

Mrs. Byrd is the former Beulah Gardner of Harriman. They live at Route 4, Hassler Mill Road, Harriman, with their two children, Terry and Teresa.

Byrd's outside interests include golf, and football.

## Paducah men's idea will save \$75,000



Riley

Lowery

John B. Riley and Thomas W. Lowery, of Paducah's Fabrication and Maintenance Division, have come up with a cost reduction estimated to save the plant approximately \$75,000 over the next three years.

Working in the C-720 Machine Shop, they have instituted a new method of preparing pipe samples for practice welding. The samples will be used in training workmen throughout the PEM program.

A hollow spindle lathe is used to produce the pipe samples. This operation performs cutting and beveling simultaneously and replaces the former procedure wherein the pipe was flame-cut and then beveled on a turret lathe.

**FORMER ORGDP MAN DIES**

James W. Stout, who retired from the Fabrication and Maintenance Division at ORGDP in 1966, died January 10 at a Knoxville hospital. Survivors include his wife, Mrs. Nancy Stout, a son, a brother and two sisters. Funeral services were held in Oak Ridge, with burial in Anderson Memorial Gardens.

## COMPANY SERVICE 20-25-30

**Y-12 PLANT****25 YEARS**

Betty I. Fox and Robert B. Bullard.

**20 YEARS**

Toy Moon, Preston A. Cuthbertson Jr., Ernest E. Choat, Loren M. Lawhorn, Willard A. McFarland, James P. Thomas, Walter J. Kisiah and Louis Kovach.

**PADUCAH****20 YEARS**

Harold F. Brown, Lenith A. Rogers, Elmer C. Breidert, Robert L. Crutcher, Eldon R. James, Max Sacharnoski, Carol F. Alexander, Harold D. Hargan, Wendell M. Cox and Vernon C. Elms.

**ORGDP****25 YEARS**

Bailey M. Britton, Frances O. Ware, Donald W. Burton and James R. Carden. Ewell S. Thompson and Edward D. Wilson.

**20 YEARS**

Richard J. Emmert, Lola C. Byrd, Everett T. Strunk and Viola W. Potts.

**ORNL****30 Years**

Culver

Livingston



Rison

Skidmore

## Harold Davis, ORNL named APS fellow

Harold L. Davis, ORNL's Solid State Division, recently was named a Fellow of the American Physical Society. APS fellowship is attained by members who have made contributions to the advancement of physics by independent, original research or who have rendered special service to the field of physics which is considered equivalent to such contributions. The qualifications and publications of the candidates are reviewed by the Council.

Davis received the Ph.D. degree in theoretical physics from Ohio State University and has worked at ORNL since 1964. He is a leader of a research group involved in theoretical investigations of the electronic properties of solids, and is a lecturer in the Oak Ridge Graduate School of the University of Tennessee. He is the author and co-author of many scientific papers. In addition to his theoretical research, Davis has maintained close association with several of the experimental research programs at ORNL, and has made many contributions to those programs.



Davis

## Paducahans may use notaries for licenses

Attention, Paducah employees. Does your driver's license expire this year? Licenses in Kentucky are issued on a two year basis and expire on the driver's birthday. You may apply for renewal of your driver's license 30 days prior to their expiration. Since circuit court clerk's offices are not open on Saturdays, Paducah employees may pick up the form and have it notarized in the Personnel Department. See Barbara Ashbrook or Martha Cates, in C-100 building, for assistance. This service may save you the trouble of having to take a driver's test again.

Robert S. Livingston, director of the Program Planning and Analysis Program at Oak Ridge National Laboratory, joined the Carbide staff March 4, 1943. Born and educated in California, Livingston served as director of the Electronuclear Division from its formation in 1951 until 1971. He is a stereo music enthusiast and is fascinated by the Russian language and culture. He has been to Russia several times. Livingston lives with his wife, Audrey, and three of their five children at 9 Fairlane Drive, Powell.

John D. Rison started work for Union Carbide on March 5, 1943. He is originally from Blacksburg, Va., and is a guard in the Laboratory Protection Division. Rison enjoys watching football games and is an avid "big orange" fan. He and Pauline, his wife, live in Cumberland Estates, Knoxville.

Milus R. Skidmore came from Harlan, Ky., to join the Union Carbide staff in March 1943. He is in the Isotopes Division. Skidmore, whose hobbies are fishing, camping and flying, has a commercial pilot's license. He resides with his wife, Ruth, and three of their four children, at 103 Daniel Lane, Oak Ridge.

Joseph S. Culver works in the Thermo-nuclear Division. He is one of the original group that came from Berkeley, Calif., to work on the Manhattan Project in 1943. His hobby is photography and his daughters-in-law and grandchildren are his favorite subjects. He and Betty, his wife, live at 110 Carnegie Drive, Oak Ridge.

**25 Years**

William A. Bradshaw, Raymond E. Millsbaugh, Thomas C. Quinby, Gertrude S. Brown, Richard C. Shipwash, Jeanne Z. Brown, Robert E. Harris, Dorothy E. Caldwell, George A. Holt and Charles A. Mills.

**20 Years**

Jack Truitt, William L. Corum, Richard H. Anderson, Hanover Weaver, Thomas R. Rice, Frank L. Herron and Herbert D. Mobley.





## RECREATIONOTES

### VOLLEYBALL

The Hawks and Pack still maintain a tie in the Volleyball League, each with no losses, and six victims to their credit.

League standings follow:

Team	W	L
The Hawks	18	0
The Pack	18	0
The Committee	14	1
The Gang	10	2
Y-12 Old Men	12	3
Taxi Squad	10	5
Anti-Quarks	11	7
Electric Bananas	8	7
Jokers	9	9
Old Men	6	6
Benthics	5	7
Over-The-Hill Gang	5	7
Radphys	6	12
Raiders	6	12
Playmakers	5	10
Bombers	4	11
Quarks	4	11
Bawlers	4	14
Sloths	3	12
Spikers	3	12
Phoenix	1	14

### BASKETBALL

The GBU's still hold a 10 won, no loss record in the Atomic League, while their nearest competitor, the CC 69ers, have a seven won, one loss record.

Atomic League standings follow:

Team	W	L
GBU's	10	0
CC 69ers	7	1
Springers	7	3
Pistols	6	3
K-25 Trojans	4	5
Bottlenecks	2	6
Sharpshooters	2	6
A-5 Bucks	1	7
Isomets	0	8

The Nuclear League sees the Aardvarks and TAT Playmakers tied for the lead, with an edge going to the Aardvarks, because of the schedule. Gymnasium commitments held back the schedule recently.

Nuclear League standings follow:

Team	W	L
Aardvarks	9	1
TAT Playmakers	6	1
Bombers	6	2
Grundy Express	5	4
X-10 Cafeteria	4	4
Abends	3	5
Environmental Sciences	3	5
Biology	2	6
Butterfingers	1	9

### ORGDP BOWLING

The Pay-Offs command a rather substantial lead in the Women's Bowling League, thanks to fancy alley-work by Vernice Clower recently. She rolled a 213 scratch game. Dorbra Lee, rolling for the Hot Shots, put a 542 scratch series on the pay boards.

The Tuesday League puts the All Stars way out ahead of the City Slickers. C.L. Butcher rolled a high game recently, 222, and a 601 scratch series. The All Stars hold top notch in games, a 3132 handicap series.

The Wednesday League sees the Mix-Ups five out in front of the Amps. Stan Finch posted a 274 handicap single recently, and a 686 series.

### Y-12 BOWLING

The Splinters rolled their way into a one and one-half point lead in the Y-12 Mixed League recently by downing the Alley Cats for four points. The Friskies rolled hot recently, posting an 853 handicap single game.

The Mini Strikes stand four out in front in the C League, ahead of the Sunflowers. J.C. Kendra, Rollmasters, rolled a 255 game recently... his team a 3169 handicap series.

The Bumpers are still miles ahead of the Markers and Eightballs in the Classic League. The Rojo's hold high game thus far, a 1114 handicap single.

### ORNL BOWLING

The Pinups barged into first place in the A League recently, knocking over opponents right and left. The Picks are in second place, thanks to some fancy bowling recently. The Ten Pins' W. Paul rolled a 219 game recently for night highs.

In C League standings the Damagers are scant leads, away from the Pin Heads and Remkeys. Del Ducay, Damagers, rolled a 671 handicap series recently. The Remkeys' D.L. Laughlin rolled a 233 single game in February.

The E League shows a tie, with the Woodchoppers and Mets right up there. The Gutterfinks and the Guttersnipes also tie for second place. The Dodads' Taylor posted a 202 game recently.

The Mousechasers hold onto a scant lead in the ORNL Ladies' League, in front of the Pic-Ups and Bowling Aces. The Strickettes hold high for the second half in series bowling with an 877 handicap tally.

A man doesn't live by bread alone. He needs buttering up once in a while. —Max Rogers



**ORGANIZE BOWLING TOURNAMENT** — Officials for the up-coming Bowling Tournament for Carbiders in the Oak Ridge area met recently in Recreation to map plans for the three-plant event. From left, Bill Hackett, director, Y-12; Judd Kahn, ORNL; Mabel Tyer, Y-12; Jim Corn, ORGDP; and Walt Joest, Y-12. An additional day has been put on the schedule, April 14.

## Another day added as bowlers gear for All-Carbide contest

Bowlers have added another day to their tournament, originally set for March 31, April 1 and 7, 8. Saturday, April 14 has been added to the tournament schedule, as the 10:30 Sunday sessions have been cancelled.

Rules have been changed slightly this year, allowing bowlers to separate their

singles and doubles, if they wish. They may bowl them together, as has been the custom, or they may separate them.

Entry forms have been distributed among bowling team captains, and are also available at the Recreation Office, Building 9711-5, Y-12. They will mail you copies if you wish. Call extension 3-5833.

Fees are \$3 per person per event, plus 50 cents for All Events competition. The fees must accompany the entries.

Bowlers should indicate first and second choice for preferred dates and times on the entry card. Shift workers will be given preference in the scheduling if there is a conflict. Requests for shift preference should also be noted on the entry form.

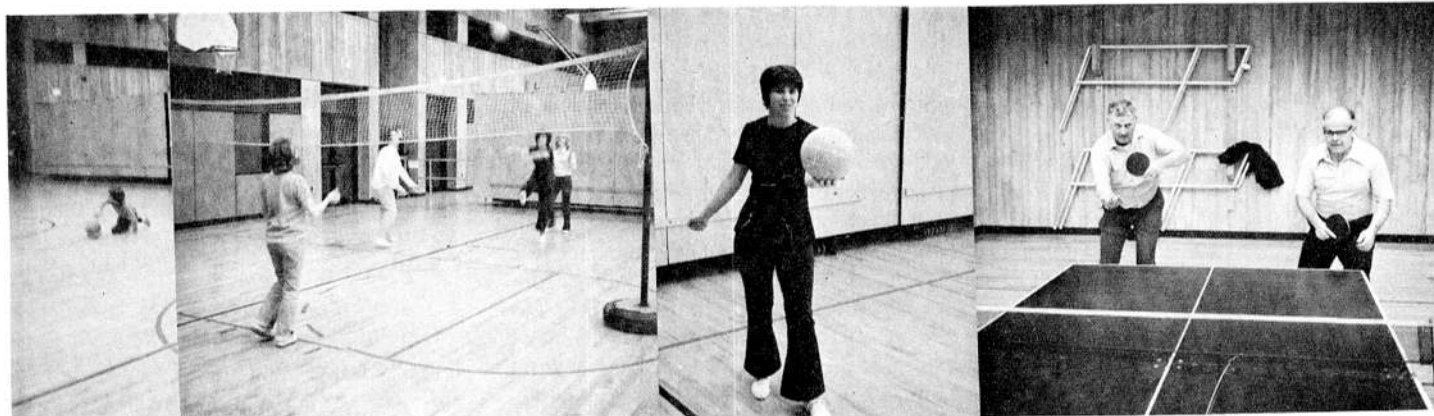
The handicap competition features a one hundred per cent return of prize money in winnings. Trophies will also be made available to winners in scratch and handicap bowling.

The tournament committee, representing the three plants, include Bill Hackett, director, Y-12; and committeemen Mabel Tyer, Y-12; Walt Joest, Y-12; Judd Kahn, ORNL; and Jim Corn, ORGDP.

All entries must be turned in by 4:30, Friday, March 16.



**SUPER WALL-EYE** — Grady W. Smith, Y-12's Building and Grounds, pulled this 'thumb-breaker' in from the Lower sluice waters of the Little T recently to enter in the Carbide Fishing Rodeo. Smith says a game warden, who took the above photograph, suggested he mount the specimen, but Smith told him wall-eye was too good for that... good to eat, that is!



## Family recreation Tuesday in Ridge

Special family recreation is announced by the Recreation Department for the three Oak Ridge plants. Volleyball, basketball and table tennis, all on an informal basis, are featured for families of Union Carbide employees.

The sessions are held Tuesdays, 7 to 10 p.m., at the Oak Ridge Civic Center.

Badminton, on a more formal basis, is featured at the Old Jefferson Junior High School, on Thursdays, 7 to 10 p.m. also.

Recreation stresses that families may participate with employees.



# The Medicine Chest

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning their health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," NUCLEAR DIVISION NEWS, Building 9704-2, Stop 20, or call the news editor in your plant, and give him your question on the telephone.)

By T. A. Lincoln, M.D.

**QUESTION:** "What is hypoglycemia? What are the symptoms? Is the three-hour glucose tolerance test effective in determining its presence?"

**ANSWER:** Hypoglycemia is low blood sugar. It may occur in diabetics when they have taken too much insulin, have eaten too little, have waited too long to eat, or have exercised vigorously. In diabetics, the symptoms caused by a low blood sugar vary greatly, depending on how rapidly the blood sugar level fell to the hypoglycemic level, how low it finally got, and what the patient was doing



during its development. Each person also probably has his own unique reaction pattern. The typical symptoms are hunger, sweating, trembling, weakness, inability to concentrate, "goofiness," and often anxiety.

The symptoms are most rapidly relieved by drinking a dilute corn syrup solution. A cola beverage or sweetened orange juice also works well.

The popular press has made much ado about hypoglycemia in otherwise normal individuals as a cause for chronic fatigue, nervousness, headaches, and general physical inadequacy. There is no good evidence that hypoglycemia causes any of these symptoms. Functional hypoglycemia (not related to insulin treatment) is rare. In order for such a diagnosis to be made, a low blood sugar has to be present when symptoms are present, and they have to be promptly relieved by eating food or sugar. The three-hour or even five-hour glucose tolerance test is often performed in an effort to make an accurate diagnosis. It is of limited value since some perfectly normal people will have three-hour blood sugar levels lower than normal with no symptoms. When the rare case of functional hypoglycemia is found, it can usually be treated with a low carbohydrate, high protein diet with between meal and bedtime protein snacks. The American Diabetes Association, the Endocrine Society, and the American Medical Association have just issued a joint statement on hypoglycemia emphasizing the above points to try to correct popular misunderstandings.

**QUESTION:** "Should a middle-aged person who does not eat dairy products (milk, cheese, etc.) take calcium tablets? What are the symptoms of a deficiency of calcium?"

**ANSWER:** A calcium deficiency in a healthy middle-aged adult due entirely to an inadequate diet would be relatively

rare. The human gut is a remarkable machine when it comes to absorption of calcium. When the body needs calcium it absorbs more. When the body's calcium supply is adequate, it absorbs less. In this country only about 20 to 30 per cent of the calcium eaten in various foods is absorbed. The body also utilizes calcium more efficiently when the intake is low.

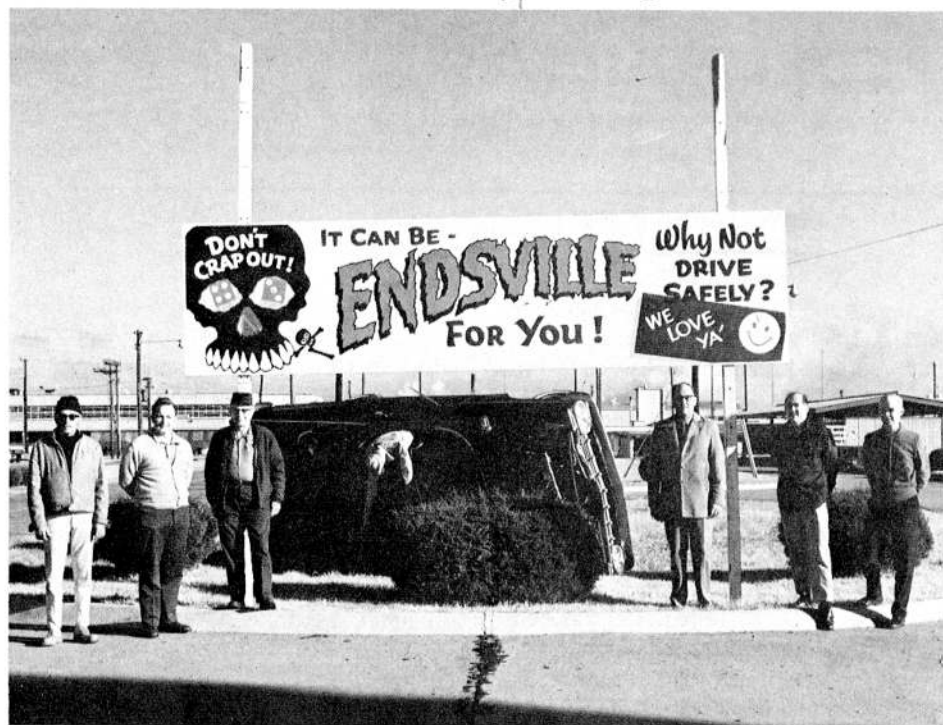
The World Health Organization Expert Group on Calcium concluded that intakes of 400 to 500 milligrams per day would be a suggested practical allowance for most healthy adults. They say that this is the "intake at which the needs of the great majority of persons in any defined population are likely to be met."

This daily allowance is based on intake and output studies but it is clear that a few adults can get by on less. In countries where milk is not drunk by adults and there are few sources of calcium in the remainder of their diet, people seldom suffer from calcium deficiency. Studies in Peru and India have shown that adults can get by on only 300 milligrams a day if their systems have a lifetime adjustment to this intake. What they must do is absorb more from their meager diet and use it more efficiently.

Calcium deficiency within the body is usually due to disease or hormone deficiency. The most common disease of calcium metabolism is osteoporosis, which occurs in old age and is characterized by a demineralization of the skeleton, bone pain, and easy fractures. In women, the onset often occurs a few years after the menopause, so loss of the female sex hormone is important. Diet is probably of little significance since many women who develop the disease have eaten adequate amounts of calcium all their lives.

During childhood and adolescence, high calcium intakes are important for bone growth. During old age, extra calcium intake may be of some benefit in slowing down osteoporosis. Dairy products are the best sources of calcium. However, vegetables are also a good source. It is interesting that the diet of the poor in the southern highlands may be poor in dairy products, but it is often rich in greens and beans, both excellent sources of calcium. Calcium tablets are usually not indicated unless the calcium metabolism is disordered by disease or the diet, because of idiosyncrasy, is inadequate. The sweet old lady who lives chiefly on tea and crumpets, or the cranky old man who dislikes most nutritious foods, can develop calcium deficiencies and may need calcium tablets.

Our prayers are answered not when we are given what we ask but when we are challenged to be what we can be. —Morris Adler



**GRIM REMINDER** — A startling display in front of the Paducah Plant reminds Nuclear Division employees there of the grim statistics of the nation's highway accident rates. From left are Charles E. Carrigan, J. Ray Wright, John P. Schneider, Hugh G. Coltharp, Claude R. Beverly and William O. Cherry.

## ORNL staff members present papers in January - February

Many ORNL staff members presented papers during January and February at meetings throughout the country.

Robert H. Rainey, Chemical Technology Division, "The Preparation of a Master List of Chemicals Used in Cooling Towers for Use in Preparation of Environmental Impact Statements," at the 1973 Annual Cooling Tower Institute Meeting, Houston, Tex.

Ted S. Lundy, Metals and Ceramics Division, "Corrosion in Nuclear Systems," at the University of Alabama, Birmingham, Ala., and at Florida Atlantic University, Boca Raton, Fla.

John N. Burns and Willis H. Baldwin, Chemistry Division, and Frank H. Fink, Birmingham Southern College, "Organometallic Bonding to Trivalent Lanthanides: The Structure of Neodymium Tri(methyleyclopentadiemide)," at the Gainesville Meeting of the American Crystallographic Association, Gainesville, Fla.

Jack S. Watson, Chemical Technology Division, "Fusion Reactor," at the Nuclear Reactor Symposium, North Little Rock, Ark.

Arthur F. Rupp, Directors Division, "Reactor Production of Radioisotopes," at the ANS-NMS Meeting, Kansas City, Mo.

Walter S. Snyder, Health Physics Division, "Environmental Pathways from Reactor to Man," at Texas A and M University, College Station, Tex., and Northeast Louisiana University, Monroe, La.

William C. Yee, Chemical Technology Division, "Thermal Aquaculture: Potential and Problems," at meeting of the Knoxville Technical Society, Knoxville, Tenn.

William E. Browning Jr., Reactor Division, "Assessment of Environmental Impact for Nuclear Power Reactors," at the University of Vermont.

W.H. Butler, Metals and Ceramics Division; J.M. Lloyd, Auburn University, Ala.; and E. Underwood, East Carolina University, Greenville, N.C., "Density of States Expressed as a Continued Fraction

of Matrices: Application to Disordered Systems," at the International Symposium on Applications of Quantum Mechanics, Sannibel, Fla.

John W. Poston, Health Physics Division, "Intercomparisons of Dosimetry Systems under Conditions of Simulated Nuclear Accidents," at the Baltimore-Washington Chapter, Health Physics Society Meeting, Bethesda, Md.

William Lijinsky, Biology Division, "The Delaney Amendment Concept in Relation to Environmental Carcinogenesis," at the New York Academy of Sciences, New York City.

L.J. Nugent, Chemistry Division, "Extension of Free-Atom and Free-Ion f-Electron Systematics to General Lanthanide and Actinide Phenomenology," at the American Chemical Society Winter Divisional Meeting, Newport Beach, Calif.

G.W. Cole, R.E. Chrien, R.C. Boyd and S.F. Mughabghab, Brookhaven National Laboratory; and J.A. Harvey and G.G. Slaughter, Physics Division "Validity of the Valence Neutron Model for <sup>98</sup>Mo," at the New York APS Meeting of the Division of Nuclear Physics.

Paula J. Thompson, Alan H. Haber, Larry L. Triplett and Otto J. Schwarz, Biology Division, "Greening of Etiolated Leaf Tissue in Absence of Thymidine Incorporation into DNA," at American Society of Plant Physiologists, Atlanta, Ga.

Otto J. Schwarz, Paula J. Thompson and A.H. Haber, Biology Division, "Thymidine Phosphorylating Activity in Relation to Aging in Wheat," at American Society of Plant Physiologists, Atlanta, Ga.

W.R. Jordan III, and Alan H. Haber, Biology Division, "Cytokinins in Relation to Mitotic Inhibition in 'Gamma-Plantlets,'" at the American Society of Plant Physiologists, Atlanta, Ga.

James W. Holleman, MAN Program, "Retrogenesis in Cancer: Theoretical and Practical Considerations," and "Retrogenesis in Cancer: Implications for Understanding and Control," at the University of South Carolina.



# CALENDAR of EVENTS

## TECHNICAL

March 7

Metals and Ceramics Division Seminar: "Internal Friction in Substituted B-Alumina," Vernon L. Burdick, Associate Professor of Ceramic Engineering, New York State College of Ceramics, Alfred. East Auditorium, Building 4500N, 2:45 p.m.

Chemical Technology Division Seminar: MSBR Processing Studies: "Chemistry of Fuel Reconstitution," M.R. Bennett; "Protactinium Removal by Oxide Precipitation," O.K. Tallent. Central Auditorium, Building 4500N, 3 p.m.

March 13

Mathematics Division Seminar: "Fast Walsh Transform," Professor W.R. Wade. East Auditorium, Building 4500N, 10:30 a.m.

March 15-16

Symposium on Advanced Analytical Methods in the Clinical Laboratory: Oak Ridge National Laboratory.

## Patents granted

To James M. Leitnaker, ORNL, and Karl E. Spear, State College, Pa., for "Stabilized Uranium or Uranium-Plutonium Nitride Fuel."

To David O. Campbell, ORNL, for "Isotope Enrichment Process for Lanthanide and Actinide Elements."

To Casimer J. Borkowski and James M. Rochelle, ORNL, for "Alarm Radiation Dosimeter with Improved Integrating Pulse Ionization Chamber and High Voltage Supply."

## RETIRED ORGDP MAN DIES

Courtney P. McCurry, Kingston Pike, Concord, died February 4, in a Knoxville hospital. Mr. McCurry retired from ORGDP in 1970, after working more than 22 years there. Funeral services were held at Mann's Funeral Home, Bearden, with burial in the Concord Masonic Cemetery.

## COMMUNITY

March 2

Oak Ridge Playhouse presents "Mary, Mary." Oak Ridge Playhouse, 8:20 p.m. Other performances are scheduled for March 3, 9, 10, 16, and 17.

March 4

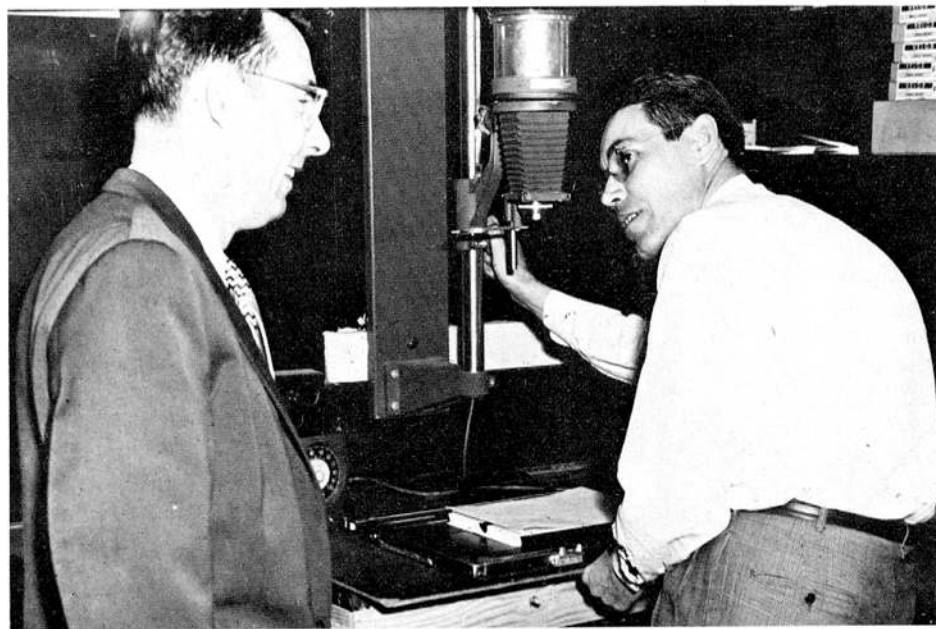
The Oak Ridge branch of the American Association of University Women presents "Rebecca," a film based on du Maurier's novel. Jefferson Junior High School, 8 p.m. Admission: adults \$1.25; students \$.75.

## QUESTION BOX

**QUESTION:** Since the Nuclear Division News is now a four-plant paper, and I'm sure the space is very limited, why not leave out the Company Service Credit column which usually takes up approximately one-half column. None of the plants are young, therefore, a large majority of employees would be listed in the column and this no longer appears to be newsworthy. Why not use the space for more profiles of interesting hobbies, outside accomplishments, etc., of Carbide employees which we all enjoy. The division retirees column should be retained.

**ANSWER:** You are correct in stating the space is limited. However, the editors feel that one of the paper's responsibilities is to recognize long-term employees. Previously, the paper listed names of employees with 10 and 15 years' company service. Under a recently-adopted policy, these two categories have been eliminated and listing starts with 20 years of service in order to economize on space.

The editors appreciate your suggestion concerning profiles of outside activities of employees and are planning to expand coverage of such activities.



**DISCUSS EQUIPMENT** — Gene Black, left, and John Wood discuss newly acquired equipment provided to the Camera Club in the mid-fifties. Black is in Purchasing and Wood, a former Y-12er, is now with ORNL. Enlarging equipment is available in the club's dark room in Cheyenne Hall.

## Camera Club

(Continued from page 2)

Charles Kuykendall, president; Conrad Richter, vice president; and Frances Sprouse, secretary-treasurer.

The club has announced competition classes for the remaining part of the year, as follows:

March: slides of portraits: children, adults or groups

April: prints of pictorial scenes

May: slides of art and design; still life, abstract, etc.

June: prints of portraits

July: slides of nature and wildlife

August: prints in the open category

September: pictorial slides

October: prints of nature and wildlife

November: slides in the open category

December: prints of art and design.

Currently, the Carbide Camera Club has more than a hundred members. If you are interested, drop by at their next meeting, March 13, at 7:30 at Cheyenne Hall. They welcome you as a visitor or a member.

## Division deaths

Lloyd G. Alexander, ORNL's Reactor Division, died February 9 at his home.

Mr. Alexander, who was born in Lunn, Ind., had been with Union Carbide since 1952. He held membership in several technical and professional societies, and was a lecturer of undergraduate courses in chemical engineering at The University of Tennessee. He also took an active part in the political affairs of the city of Oak Ridge.

Survivors include his wife, Mrs. Marion Alexander, 110 Oklahoma Avenue; two sons, Pierre Martin and James Kimble; a brother; a sister and an aunt.

A memorial service was held at the Chapel-on-the-Hill, Oak Ridge, with the Rev. Arthur Graham officiating.



Mr. Alexander



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**LEGAL AID SEMINAR** — The four Nuclear Division men above recently sponsored a legal aid seminar in Oak Ridge, designed primarily for people with low incomes. From left are Bob Kernohan, Bill Johnson, Wilbert Minter, and Alan England. Kernohan and England are at ORNL, Johnson and Minter at Y-12. All are members of the Community Relations Council. The seminar featured three lawyers and two University of Tennessee law students, answering questions from the audience. Other Nuclear Division men served as panel members. John M. Googin, Y-12, represented the American Civil Liberties Union, and spoke briefly on civil rights.

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